OCCUPATIONAL
HEALTH & SAFETY
MAY 2007

WHY YOUNG, EAGER WORKERS ARE VULNERABLE

WWW.WORKSAFELY.ORG

USE NEAR MISS REPORTING TO BUILD A SAFETY CULTURE

by Peter Reed

Our company has learned that it's difficult to get employees to report all near misses. There is a fear that admitting to a near miss will have repercussions. This is a tough hurdle to overcome.

One of the tools we use is adding near miss report requirements to quarterly and yearly safety awards programs. We enter and track all near misses on a database and use the information collected to predict trends. It has taken several years to improve the quality of the near miss reports, but "Saw a deer along the road" eventually becomes "Often see deer at same crossing point on Highway 123." As the quality and number of reports have improved, the rate and severity of incidents have decreased noticeably.

Training new employees about what constitutes a near miss is another ongoing challenge. Some employees think a near miss is a "near incident." They might say, for example, "The wind slammed the door shut and narrowly missed pinching my fingers." I would prefer to hear what could potentially cause an incident, as in "The door on the rig shack is unrestrained. It could be slammed shut on someone's hand."

No matter how much you train, nothing will improve if there is no one to categorize and plot the information collected. The trending of near miss reports is not always a true indication of what is going to happen—in the oilfield business, particularly, we find that changes occur quickly. But if you don't do this trending, your safety campaigns are a shot in the dark.

Two years ago we noted that employees with one year or less on the job, called Short Service Employees, were six times more likely than other employees to be involved in a near miss or incident. So we encouraged experienced employees to focus on mentoring new employees. Just one year later, the data on involvement of Short Service Employees in near misses and incidents had dropped to only twice as often as experienced employees. The question some will ask is, "Does this mean the number for experienced employees has risen to change the ratio?" The answer is a definite "No."

We also encourage near miss reporting through our green hard hat program. We require our employees to wear green hard hats for at least the first six months of working for us, and extend the time if the Short Service Employee has an incident or does not put in enough near miss reports. This includes people transferring in from other areas of the world or other product lines.

All new field employees receive 10 days of New Employee Safety Training that includes near miss awareness. Many of the near miss reports from Short Service Employees have helped the experienced hands see things they have considered "just part of the job" as an inherent risk. These reports have helped us change job procedures and reduce risk.

> Many of the near miss reports from Short Service Employees have helped the experienced hands see things they have considered "just part of the job" as an inherent risk.

I see many different types of near miss reports, and I believe these reports are becoming part of our work culture. One of the continuing challenges, though, is to bring recognition of near misses into our personal lives. Once we bridge this gap, it will truly be a part of our broader culture. When that happens, new employees will arrive at work with a basic understanding of how to recognize unsafe situations and reduce risk.

The challenge ahead is to continue to make awareness, reporting and elimination of risks a true part of our lives and the lives of our families. We must lead by example, removing risks and hazards from the workplace by using all of the tools available and inventing new tools.

Peter Reed is the Canada Environmental Manager at Schlumberger Canada in Calgary.

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Membership on the Occupational Health & Safety magazine advisory board is open to any resident of Alberta with knowledge and experience in health and safety, and an interest in communicating health and safety information to the public. Anyone who is interested in joining the board should submit a letter of application to the managing editor of the magazine. The board meets three times a year in Edmonton. Board members do not receive remuneration or reimbursement for expenses related to meetings. See "Contacting the Editor," below.

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From the Courtroom will return next issue.

NEW E-LEARNING PROGRAMS

Four new interactive e-learning awareness programs on the Alberta Employment, Immigration and Industry website address these important topics:

- Employment Standards Dispute Resolution
- Workplace Health and Safety for Schools
- Impairment and Workplace Health and Safety
- Backs and Bums: Applying Basic Ergonomics

Each program:

- provides an overview of the subject and links to more detailed resource material
- is made up of several modules, followed by a light-hearted "check your understanding" quiz
- takes approximately one hour of work to complete

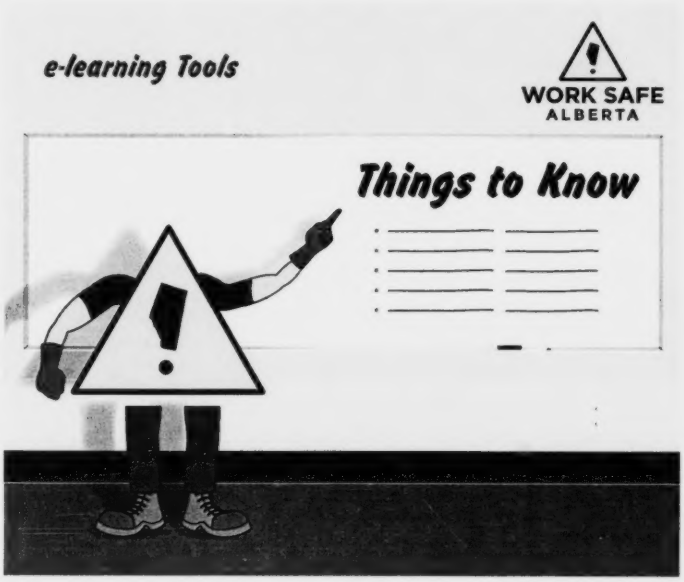
Employment Standards Dispute Resolution explains how to promote a collaborative dispute resolution approach between employees and employers, and presents options for resolving disputes about minimum employment standards.

Schools, like other industries, can expose employees to a variety of health and safety hazards. In addition, there are concerns about the health and safety of students, parents, volunteers and visitors. **Workplace Health and Safety for Schools** provides basic information about workplace health and safety measures that can be applied to any school setting.

Impairment and Workplace Health and Safety has been developed to increase employers' and workers' knowledge about the impact of impairment on workplace health and safety, and provide advice on addressing this complex issue. Impairment, whether from alcohol, drugs, fatigue or other causes, can be a contributor to injuries and illness in the workplace.

Backs and Bums: Applying Basic Ergonomics presents basic ergonomic concepts and helps answer these questions: What is ergonomics? What contributes to musculoskeletal injuries? What can we do reduce the hazards?

To find these new e-learning tools, and to revisit others that are available, go to http://industry.alberta.ca/whs-elearning (or http://employment.alberta.ca/cps/rde/xchg/hre/hs.xsl/1224.html for Employment Standards). They will soon be available on CD as well, with an with an optional learner tracking tool that allows administrators to track users' completion status.



NATIONAL CONSTRUCTION SAFETY DESIGNATION

In 2005 a committee of safety professionals representing Canadian construction safety associations began work on a profile for a Construction Safety Coordinator designation. This designation, offered through the Canadian Construction Associations Gold Seal certification program, became available as of January 15, 2007.

Gary Wagar, executive director of the Alberta Construction Association, says, "We will support this program immediately—it just makes sense as a national certification with a solid history."

To apply for a CSC designation, ask your local construction association office about the Gold Seal Program. The exam is administered three times a year, in April, July and October.

For more information, go to www.goldsealcertification.com.

BOOKLET HELPS EMPLOYEES MAKE HEALTHIER CHOICES

A Fresh Look at Healthy Workplaces, a free 32-page booklet, is now available for downloading from the Alberta Health and Wellness Healthy U website. This booklet provides information, tips and resources to help employees make healthy choices at work and in their personal lives. The Healthy U workplace wellness program also provides support materials, tip sheets and posters.

There is growing recognition that the work environment influences health. The health of employees, in turn, influences an organization's bottom line. Increased job satisfaction, improved morale, reduced injuries and increased productivity are just some of the benefits of having healthy employees on the job.

Although we can't change our genetic makeup, we can do some things to reduce our risk of getting diseases. Making healthy choices helps prevent heart disease, stroke, diabetes and other diseases. By changing habits a little at a time, we can be healthier.

Check out what's new and exciting in workplace wellness at www.healthyalberta.com.

MESSAGE FROM THE NEW MANAGING EDITOR

In February 2007 the *Occupational Health & Safety* magazine's managing editor, Wally Baer (executive director, Workplace Health and Safety and Employment Standards Compliance), announced he had accepted an appointment as president and chief executive officer of Enform. I am honoured to be chosen as the new managing editor and look forward to maintaining the high standards Wally has set for this publication.

A whole raft of other changes also occurred during the production of this issue. In December 2006 Premier Ed Stelmach announced a new Cabinet consisting of 18 ministers in place of the previous 24. In the process, our department acquired a new name, new responsibilities and a new minister. Honourable Iris Evans was appointed Minister of Employment, Immigration and Industry, a department evolving from what had previously been Alberta Human Resources and Employment and including several additional responsibilities such as rural development and some aspects of economic development. Alberta Employment, Immigration and Industry continues to do the important job of contributing to workplaces that are safe, healthy, fair and stable for employees and employers.

In January, Chris Chodan, our department's longtime media spokesperson on workplace issues and member of the magazine's advisory board, announced he was taking a leave to train with the Loyal Edmonton Regiment and then serve a tour of duty in Afghanistan. Barrie Harrison is replacing Chris while he's away.

At about the same time another board member, Lloyd Harman, moved from the Alberta Forest Products Association to Enform. However, Lloyd will still serve on the advisory board and continues to make a significant contribution to the province's health and safety initiatives.

— Joe Childs, Director
Workplace Partnerships

YOUNG AND INEXPERIENCED WORKERS

THEY'RE OUR RESPONSIBILITY

by Norma Ramage

It's that time of year. Students are excited about the money they'll earn at their summer jobs, and recent grads are entering the workforce, filled with hopes for a rewarding career. But that can all change in an instant.

In 2005, workers aged 15 to 24 accounted for 20.4 per cent of workplace injuries in the province, although they represented only 17.5 per cent of the labour force. This statistic is even more disturbing when you consider that young people generally work more part-time jobs and shorter hours overall, and therefore have less exposure to workplace hazards.

And now, with Alberta's current labour shortage, employers are hiring increasing numbers of young and inexperienced workers. So the safety of new hires is clearly a priority.

Why young workers are vulnerable

Cailín Mills, effective practices specialist with Workplace Innovation and Continuous Improvement, says her organization's research has identified a number of reasons why young workers are more at risk than their older, more experienced counterparts. Among them:

- inexperience
- a feeling of invincibility and a belief that nothing bad can happen to them
- frequent job changes, leaving little time for proper training
- an eagerness to impress employers and prove themselves
- lack of awareness of their rights as workers

Mills believes that understanding these factors will help employers design more effective health and safety programs. Plus, she says, "If we focus on this young group now, as they move on in their working lives, we can start a safety culture change."

> "Safety training says to young people, 'Even if you are only 18 and on your first job, we value you'."

Getting the message through

Mills says employers should remember that training manuals and print materials used by previous generations may not be appropriate for a generation brought up on iPods, the Internet and 30-second sound bites. Instead, she says, consider videos and Internet-based point-and-click training and information programs.

Communicating with young workers at a level and in a way they can relate to is critical, says Mills. That's why a new awareness poster and information campaign from Workplace Health & Safety uses the tagline, "What are you working for? Stay safe to enjoy the stuff that matters." For example, Mills says, "Perhaps you are working to get money to buy a guitar, but you won't be able to play that guitar if you lose a finger in a workplace incident."

The approach with young workers at the Edmonton sheet metal manufacturing firm Prairie Metal Industries Inc. is not to lecture, but to interact with them. Tatiana Olasiuk, safety coordinator for the company, says, "When I do safety orientation I give specific examples of incidents that can happen, incidents that are specific to their age group." Olasiuk believes such examples can help make work site dangers more real to them. "A lot of

times when you're 18, instead of being focused on the task at hand, you're thinking of something else, like a date tonight. I think this helps them focus."

At Sears Canada's Calgary National Logistics Centre, a huge warehouse where 75 per cent of employees are under 24, constant communication is the key to safety. Safety Coordinator Scott Parks spends time on the floor talking to young workers and, like Olasiuk, he tries to approach safety in terms that will resonate with them. It is particularly important not to talk down to young workers, adds Parks. "Don't treat them like children. They're bright and enthusiastic, and they want to learn."

> "If we focus on this young group now, as they move on in their working lives, we can start a safety culture change."

Mills agrees, saying that despite the training difficulties young workers sometimes present, they really do want that training. "Safety training says to young people, 'Even if you are only 18 and on your first job, we value you'." When young workers feel valued, they are more likely to stay on the job, says Mills.

Buddy training and job shadowing

At the Sears Canada National Logistics Centre, a "buddy" training program involves experienced employees in providing newcomers with daily support from the moment they walk in the door. The buddy trainer provides theoretical classroom instruction and then works one-on-one with the new young worker. The buddy partnership can continue for a few days or a few weeks, depending on the trainer's evaluation of the new worker.

Stu MacLennan, ISO 9001 manager at the Sears Logistics Centre, agrees it is critical to work one-on-one with young hires. "Unless you lead them—much as I did myself at that age—they go and do something the way they think it should be done. Their enthusiasm sometimes makes them do something they think is great, when what they're really doing is putting themselves at risk," says MacLennan.

Edmonton's Black Cat Blades, which manufactures cutting edges for heavy equipment, takes a similar approach, called a "shadowing" program. Every new employee first gets a comprehensive three-day health and safety orientation, explains Health and Safety Coordinator Teri Nicpon. "Then we assess the knowledge base, and younger, less experienced workers get the full-bore training program."

Black Cat's shadowing program teams new workers with experienced ones. "The more experienced person explains what they are doing, why they are doing it and how it could be risky. The new employees are never by themselves during this period of two to three days." The new employee simply watches, explains Nicpon. In the two to three-week training program that follows, the new employee works alongside the person he has been shadowing, learning to do the job himself.

Nicpon says training young workers can sometimes be difficult because they don't want to admit ignorance. "With shadowing and our on-the-job training, we don't just tell them how dangerous it can be. They see for themselves."

Norma Ramage is a freelance writer and communications consultant living in Calgary.

RESOURCES

WEB LINKS

http://industry.alberta.ca/whs-youngworkers and
http://industry.alberta.ca/whs/network/hstopics/youngworkers
Work Safe Alberta information for new and young workers

www.canoshweb.org/en/young_workers.html
CANOSH links for young workers

www.ccohs.ca/youngworkers/
CCOHS Young workers

http://ew2006.osha.europa.eu/risq/
RISQ Safe Start (info for young workers)

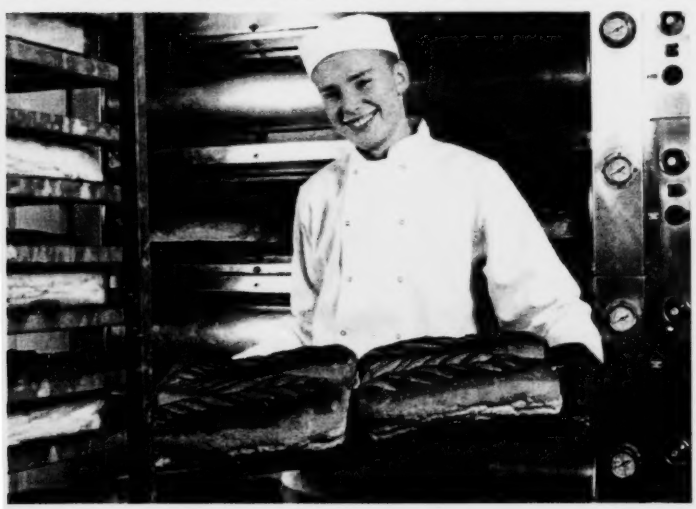
www.alis.gov.ab.ca/careershop/showproduct.asp?DisplayCode=PRODUCT&EntityKey=1384
X-treme Safety: A survival guide for new and young workers

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING
For contact information, see page 19.

VIDEOS

The Supervisor
This video raises awareness of the importance of adequate health and safety instruction for young or new workers and their supervisors. Graphic scenes and profanity. (VC 0413)

Speak Up! A Health & Safety Message For Young Forestry Workers
Young workers' rights and responsibilities for health and safety; the importance of open communication between them and their employers. (VC 0366)



RETAIL ALBERTA PROMOTES YOUNG WORKER SAFETY

Health and safety training for young workers should take place in all industries, even ones the public doesn't normally associate with workplace hazards. The largest number of young workers—26 per cent—work in retail and wholesale, and another 16 per cent in accommodation and food services. These workers can be subject to injuries ranging from back strains (from moving pallets of goods or lifting things on and off shelves) to burns and scalds. Or even harassment by customers.

That's why Retail Alberta, an association of provincial retailers, is emphasizing safety training for young workers to its membership, says Síbeal McCourt-Bincoletto, the organization's president and CEO. "It is generally a much younger demographic in retail than you would find in construction. We are working very closely with our members and government to emphasize the importance of health and safety training."

While all workers should be taught how to remain safe on the job, says McCourt-Bincoletto, "These are young kids. That gives us even more of a reason and more of a responsibility to keep them safe."

BEST PRACTICES FOR EMPLOYERS OF YOUNG WORKERS

- Consider one-on-one training, such as a mentoring or a buddy program that pairs young workers with older, experienced ones.
- Ensure your training materials fit the audience. Videos and computer programs may be more appropriate than manuals and lectures.
- Don't talk down to young workers.
- Repeat and reiterate. Young workers can lack focus, so repetition and reminders are often useful. Repeat training on a consistent basis.
- Provide feedback. When you talk about incidents with young workers and explain how and why they happened, you prove that you care about their safety.
- Make young workers aware of their rights as employees. This may be their first job and they could be too intimidated or nervous to ask.
- Delegate and identify a contact person, so when young workers have questions or concerns they know who they should talk to. Make that contact person easily accessible.

WCB-ALBERTA WORKSAFE AWARD

RECOGNIZING SAFETY LEADERSHIP AND IMPROVED PERFORMANCE

by Jacqueline Varga

Every year, WCB-Alberta honours companies that recognize the importance of injury prevention, disability management and worksite employee training. Five employers were chosen as finalists for the 2007 WCB-Alberta WorkSafe Award. Presented annually as part of the Alberta Chambers of Commerce Business Awards of Distinction, the WorkSafe Award is presented in two categories: Safety Leader and Safety Turnaround.

Safety Leader Award

The Safety Leader award recognizes an employer that leads its industry with an exemplary health, safety and disability management program and proven injury-prevention track record. This employer targets its health and safety program to all workers and contractors on its work site, leads its industry toward a better safety record, and is involved in the community through its support of health and safety initiatives.

There were three finalists in the Safety Leader category, two from Calgary and one from Medicine Hat.

Canadian Fertilizers Ltd. has produced nitrogen-based fertilizers in Medicine Hat since 1976 and employs 156 people and 30 contract personnel. In 2002, CFL launched a safety initiative called "Zero Today" aimed at encouraging employees to work safely one task, one hour and one day at a time. The long-term goal is to create an injury-free workplace for all employees and contractors working at the facility. In addition, CFL has introduced a hazard identification and near miss reporting program to increase employee awareness of their surroundings and their personal accountability for safety. The company also promotes health and safety throughout the industry and within the community by participating in discussion groups to share best practices. CFL's broad-based safety program appears to be working. The company has seen a 40 per cent decrease in injuries and incidents over the last four years and recently attained 500,000 man hours without a lost time incident.

> Calgary's Syntech Enerflex, a division of Enerflex Systems, took home the 2007 Safety Leader award while the Calgary Roman Catholic Separate School District prevailed in the Safety Turnaround category.

Syntech Enerflex is a Calgary-based company of 650 employees that provides a range of electrical, instrumentation and control technologies products and services to petrochemical, energy, forestry, pulp and paper, mining and agriculture industries worldwide. One of the company's core values is to work and live safely. It offers regular safety meetings, pre-job hazard assessments and tool box talks, along with a comprehensive injury management program. Syntech has developed a safety culture that involves its customers and industry peers.

"While we are each responsible for health, safety and the environment, we do much better when we work as a team," says Syntech Vice President Yves Tremblay. "Protecting the environment and promoting the welfare of both our employees and the community matters to us all," Tremblay adds. The company achieved a major safety milestone in October 2006, when it reached two million hours without a lost time injury.

Photos by Special Events Digital Photography

Left Photo **(l-r) Dieter Brunsch, Vice President, Customer Service & Risk Management, WCB-Alberta and Yves Tremblay, Vice President, Syntech Enerflex (Safety Leader Winner)**

Right Photo **(l-r) Dieter Brunsch, Vice President, Customer Service & Risk Management, WCB-Alberta and Kris Benson, Supervisor, Human Resource Services, Calgary Roman Catholic Separate School District (Safety Turnaround Winner)**

Located in Calgary, **Warwick Industries Ltd.** specializes in the design, fabrication and assembly of self-framing metal buildings. The company employs 65 people supplemented by 20 sub-contracted building crews. Following a major expansion in 2004, one of the company's first priorities has been to grow its existing health and safety program. It designated a full-time safety coordinator and in 16 months achieved a Certificate of Recognition.

Along with employee training and education, Warwick Industries has been proactive in disability management and has a successful modified work program. Even with its substantial growth, the company strives to retain a small-company atmosphere. "I want our people to be happy at their jobs, to be proud of what they accomplish and to return home safely each evening to their families," says General Manager Randy Tooth.

Safety Turnaround Award

The Safety Turnaround award recognizes an employer that has dramatically turned its performance around and created an exceptional health, safety and disability management program. This year, the category had two finalists vying for top honours, one from Calgary and one from Edmonton.

The **Calgary Roman Catholic Separate School District** oversees 104 district sites responsible for the education of children from kindergarten to grade 12. The district had no safety program before 2004, so its WCB premium rates were well above the industry rate. That changed when it developed a safety and disability management plan and attained a Certificate of Recognition. The district introduced safety initiatives such as an electronic incident reporting system, a modified return to work program, internal audits and a newsletter to inform employees about investigations and other updates. Since the health and safety program was introduced, there has been a reduction in the number of workplace incidents and the WCB premium rate for this employer is now almost 23 per cent below the industry rate.

In 2004, **Smurfit-MBI**, the Canadian operation of a North American packaging company, had 11 claims filed with the WCB. This number was significant given the modest number of employees working at the Edmonton plant. The turnaround came when a newly assembled management team implemented improvements. Based on five basic beliefs, the company's safety initiative now includes an active safety committee, comprehensive safety training for employees and new hires, toolbox talks, staff incentives and mentoring opportunities. The company's commitment to creating a healthy, supportive and safe environment has resulted in no lost time incidents in 2006, a reduction in absenteeism and improved customer service and employee morale.

Winners were announced at the Alberta Chambers of Commerce Business Awards of Distinction Gala on February 21, 2007, at the Shaw Conference Centre in Edmonton. Calgary's Syntech Enerflex, a division of Enerflex Systems, took home the 2007 Safety Leader award, while the Calgary Roman Catholic Separate School District prevailed in the Safety Turnaround category.

"This year's winners clearly demonstrate their dedication to making safety a number one priority," says WCB-Alberta President and CEO, Guy Kerr. "The Safety Leader award is all about outstanding achievement in health and safety and maintaining that commitment every day of every year," Kerr says. "The second award, Safety Turnaround, is just as important because it shows the company acknowledged improvements were needed and worked diligently to change their record."

For more information, visit www.wcb.ab.ca. Nominations for the 2008 WorkSafe Awards will open in September 2007.

Jacqueline Varga is the Media Relations Advisor, WCB-Alberta.

CONFINED SPACE ENTRY

by Nordahl Flakstad

Fear of being caught in a confined space can set the calmest hearts aflutter. Perhaps that's why we're drawn to the drama of miners or submariners trapped below ground or under water. Nonetheless, thousands of Alberta workers enter confined spaces every day to clean, meter or build, and then emerge safely when the job is done. These workers remain safe because employers and employees have worked hard to establish appropriate hazard assessment, training, rescue planning and other safety measures.

For example, Procor's Edmonton Service Centre annually inspects, cleans and repairs some 1,200 tank and hopper railcars, more than 90 per cent of which require confined space entry. Besides meeting provincial standards, Procor follows company-wide best practices. Testing the atmosphere is extremely important for this company because the testing determines what controls or personal protective equipment are required before anyone enters.

> ... employers and employees have worked hard to establish appropriate hazard assessment, training, rescue planning and other safety measures.

In addition to atmospheric testing by a competent, trained tester, Procor's practices include entry permits and constant "mandown" radio communication that links workers inside to an outside safety watch. Employees must complete two to four hours of confined space classroom training and hands-on training with competent co-workers before they ever enter a confined space. A program of planned full-tasking and spot "task observations" confirms that workers are up to speed on procedures, including emergency response.

Just as important as having an emergency response plan is practising it periodically to ensure it can be executed properly. Confined space entry permits such as Procor's provide for logging names and entry/exit times. As an added precaution, Procor attaches magnetic safety lights to railcars when someone's inside. Other employers track workers who are entering and exiting confined spaces by having them remove and retrieve their workplace photo ID on a pegboard.

Pre-job safety meetings for reviewing hazards before entering confined spaces are particularly important in the field, where workers may be in unfamiliar surroundings and dealing with unexpected changes. Stan Oszytko, health and safety manager at Cessco Fabrication and Engineering Ltd., says this Edmonton pressure-vessel manufacturing company does some work in the field, including at refineries and upgraders. "Our superintendents meet with the plant coordinators to ensure that we know what they're doing and they know what we're doing," Oszytko says. "We also get together with the plant rescue teams to make sure we have a rescue plan. In an emergency, we set off the alarm but the plant team does the actual rescue."

Cameron Schreiber, safety adviser with Presson Enerflex, a Nisku-based manufacturer of pressure vessels used in oil and gas processing, places a high priority on confined space entry safety. "Confined spaces have emerged to the forefront among hazards we need to identify and control," Schreiber says.

For more information

The Alberta Occupational Health and Safety Code Explanation Guide, Part 5, http://industry.alberta.ca/documents/WHS/WHS-LEG_ohsc_2006_p05.pdf, deals with confined spaces.

Various OH&S training firms offer courses, and industry organizations such as the Alberta Construction Safety Association, www.acsa-safety.org, sponsor courses on confined space entry.

Nordahl Flakstad is an Edmonton writer and communications consultant.

THINGS YOU NEED TO KNOW

Code requirements
Alberta's Occupational Health and Safety Code requires employers to prepare a written code of practice and make it available to workers. Employers must ensure that workers know and follow the relevant practices and are trained to work in confined spaces.

Employers must also:

- have an entry permit system to keep track of workers entering confined spaces
- prepare a rescue plan for emergencies
- maintain communication with workers in the confined space
- station a properly trained "tending" person or safety watch/monitor outside the entry points in specified circumstances

Note that positioning only part of your body inside still is considered a confined space entry.

What is a "confined space"?
Confined spaces are enclosures, partial enclosures and even deep, open-topped sites. Tanks (mobile and stationary), boilers, vats, manholes, sewers, bins, vessels, vaults, wells and pits are also on the list.

The Code defines a confined space as an enclosed or partially enclosed space that:

a) is not intended for continuous human occupancy
b) has restricted means of entry and exit
c) could present a hazard to workers because of one or several of the following:

- design, construction, location and atmosphere
- work activities, materials or substances in it
- compromised first aid, evacuation, rescue or emergency response
- other related hazards

Kenn Hample, safety specialist coordinator, Alberta Employment, Immigration and Industry, gets queried regularly about whether a given site amounts to a confined space under the Code. He recommends that if you "think" something is a hazardous confined space, then treat it that way until you're sure it's not.

What are the hazards?
Most of the hazards occurring in non-confined spaces also lurk within confined locations. But confined spaces can have additional dangers. The hazards include:

- falls
- electrical shocks
- fire
- chemical exposure
- noise
- excessive heat
- drowning
- engulfment
- asphyxiation

For example, asphyxiation due to inadequate air circulation could cause a worker to fall and sustain an injury. If the injured worker is in a confined space (possibly unconscious), he or she may be incapable of exiting or summoning help. Tragically, an estimated 60 per cent of confined space fatalities involve would-be rescuers—typically, inexperienced or untrained co-workers who enter the confined space only to become victims. (See article on rescue in this issue.)

The hazard assessment should determine whether spaces have too much or too little oxygen for worker safety, and whether the following factors are present:

- asphyxiant gases, including carbon dioxide, methane and nitrogen
- toxic atmospheres, including gases (e.g., hydrogen sulphide), vapours (e.g., solvents), fumes (e.g., welding)
- flammable or explosive atmospheres, such as methane or gasoline vapours

Other hazards to look for include moving machinery and uncontrolled flows of steam, gases and water or other liquids.

CONFINED SPACE ENTRY TIPS

- Conduct hazard assessments and share them with workers before they enter confined spaces.
- Watch for changing conditions in confined spaces.
- Before entering a confined space, have a trained person with properly calibrated equipment check the atmosphere in the confined space. Retain records of atmospheric testing.
- Identify other current or anticipated hazards in the confined space.
- Use ventilation or other engineered controls to remove or isolate the hazards, and use personal protective equipment when engineered controls are not enough.
- Identify and post warning signs on entrances to confined spaces in workplaces.
- Obtain and post entry permits at each entry point when working in confined spaces. Have everyone in the confined space sign in and out.
- Post a "tending" person or safety watch outside the entry point.
- Maintain communication with workers inside the confined space.
- Implement and practice a site-specific rescue plan.
- Keep rescue equipment on site for use in a confined space emergency.
- Ensure everyone working in a confined space knows their job, recognizes the hazards and has been trained in confined space entry.
- Observe employees who are entering confined spaces to verify their competence.

THE STATS

- Over a six-year period starting in 2001, the Workers' Compensation Board-Alberta reported 4,638 claims relating to confined spaces. Of these claims, 56.1 per cent involved tanks, bins and vats.
- For 2005, WCB-Alberta reported 92 occurrences involving inhalation in a confined space and one incident relating to oxygen deficiency in a confined space.

RESOURCES

WEB LINKS

http://industry.alberta.ca/whs/network/hstopics/general_safety/confinedspaces.asp
Work Safe Alberta (confined spaces links)

www2.worksafebc.com/Topics/ConfinedSpacesHazardsInDifferentIndustries.asp
Work Safe BC

www.ccohs.ca/oshanswers/hsprograms/confinedspace_program.html
What Is a Confined Space Hazard Assessment and Control Program?

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING
For contact information, see page 19.

VIDEOS

Confined Space Case Histories
Re-enactments of real-life confined space incidents emphasize the importance of following proper safety procedures. Covers safe atmospheric testing and monitoring, training the entry team, ventilation, personal protective equipment, reviews of what went wrong and incident prevention. (VC 0284)

Confined Space Safety
What a confined space is, what hazards are associated with a confined space, the four main reasons why incidents occur and how to complete a Confined Space Entry Permit. (VC 0313)

BEING PREPARED FOR WORK SITE RESCUES

by Alf Cryderman

"We train for the nightmares," says Dave Coutts, a Slave Lake rescue worker. The nightmare could be almost anything. It could be a trapped worker, a wildfire, a gas or chemical release, a train wreck, a boat capsizing or a window washer trapped on the 40th floor of a Calgary office tower. When nightmares happen, victims depend on a rescue.

> The Occupational Health and Safety Code requires employers to be prepared to deal with situations that threaten workers' lives.

The Occupational Health and Safety Code requires employers to be prepared to rescue people from confined spaces or caved-in trenches, or to deal with any other situations that threaten workers' lives. Alberta companies are fulfilling this legal requirement by having a plan, regularly holding training sessions involving simulated situations, and working closely with local municipal emergency services and other companies. This article presents the viewpoints of various people and organizations involved with work site rescues.

Reliance Safety Supply and Services

Dave Livingston, operations manager with Reliance Safety Supply and Services in Nisku, says a lot of companies don't realize they have to plan to rescue people. "The plan is your insurance," Livingston says. "Yes, rescue training and a plan will cost money, but an incident costs a lot more. What is a human life worth? You need to have a plan."

Livingston, who has more than 12 years of experience in the safety industry, recommends keeping the plan simple. "Maybe a ladder can do the rescue job instead of a fancy harness and rope. You don't always need a complex plan with highly trained people, although it's wise to have them just in case. This is especially important for companies outside the major centres, where you can't call 911 to get trained people to help." And, Livingston notes, companies can also accomplish a lot by working together.

Livingston says, "The first thing for successful rescues is a commitment from the company or employer, then from the staff responsible for a rescue. Ideally, you train a couple of times a month for emergencies that, hopefully, only happen once or twice a year."

Calgary Fire Department

Realistic training is the method the Calgary Fire Department uses to plan for emergencies. They get to "do it for real" more often than they like, but their success in those situations is built on simulated events. They practice rescuing workers from confined spaces or pulling people off office towers. Calgary rescue workers are all regular firefighters who volunteer. They can, and do, work a fire in the morning and a rescue in the afternoon. They also specialize. There are separate aquatic, heavy rescue and high angle rescue teams.

Mike Kliewer, who heads up Calgary's rescue teams, thinks of emergencies as "high risk, low frequency." Kliewer says that despite the small number of emergencies, "we take them very seriously and do simulations once a week. We need to be ready to be called in on anything. Our teams train to be out the door in two minutes."

Photo Courtesy of Canadian Hydro

"Training focuses on what needs to be done to get the person out safely," says Kliewer. "In an emergency the team arrives at the rescue site with full equipment. Under a team leader, the group evaluates the situation to develop an immediate plan for a successful rescue. Experience obviously helps, but this is where the ongoing realistic training pays off. We also do post-operational briefings that help develop our training for the future. We need everyone to learn from every incident."

Lesser Slave Regional Fire Service

Jamie Coutts, regional deputy chief with the Lesser Slave Regional Fire Service, also emphasizes realistic training. When something occurs, he says, "the average person runs away screaming while we put on our stuff and go in. We try to get industry people to think the same way."

"We spend a lot of time training industry people, be they forestry or mill workers or oil and gas workers. We give them the basics and make sure they understand them—how to use the self-contained breathing apparatus, for example."

"The point is to be prepared," says Coutts. "Every spring we do wildfire training and always make sure our people and industry safety people have first aid training. We do mock drills, say, a man down in a forestry operation. Our people don't know until they get there if the situation is real and on the way they have to prepare. Afterwards we do an analysis and debriefing. We do one with the company guys, and we each do our own separately afterwards."

Am-con Insulation Industries

Ed Henry, a health and safety manager with Am-con Insulation Industries Ltd. in Sylvan Lake, says, "Industry and municipal safety and rescue people are becoming a very tight-knit group. We all realize that by training and working together we will be better prepared and do a better job."

Henry likens emergencies to a person on a unicycle juggling pie plates. There are too many things to juggle and something gets dropped unless you train and practice. "Pre-planning is everything. You have to make sure your workers know what to do, so you pre-assess hazards and have people and equipment in place. Studies show that most training has a six-month half life unless you practice. It's that use-it-or-lose-it principle. Many companies don't practice enough."

Stuart Olson Contracting

"Too many people are complacent about emergencies," says John Lang, a district safety supervisor for Stuart Olson Contracting in Calgary. "They think it will never happen to them. If people freeze or go into shock, they can't help anyone. Your rescue people need to know what to do, and training does that."

"We develop an emergency response plan specific to every work site," Lang says. "While we also depend on city emergency services, and work with them, we too have to be prepared. So we plan and do drills to test the plan. We are seriously into risk management and planning to prevent incidents and minimize them when they happen. We are diligent about this because we're protecting our most important resource—our people. And by protecting our people we are also protecting our bottom line, our reputation and future prosperity with repeat clients."

"When it comes to planning for safety and rescues, you really don't have a choice," says Lang, who has 15 years of safety experience. "All major companies are doing it. You can't depend on calling 911 and waiting for the emergency guys to come. You need to be trained and ready to go yourself. In a lot of emergencies you have to do something right away."

Alf Cryderman is a freelance writer based in Red Deer.

See also "Rescue Techniques," page 21.

RESOURCES

WEB LINKS

www.hightek.ca/news.asp?id=47
Importance of rescue planning

www.ohscanada.com/ConfinedSpaces/the_rescuers.asp
OHS Canada Emergency Response Teams

http://en.wikipedia.org/wiki/Confined_space_rescue
Wikipedia Confined Space Rescue

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 19.

Emergency Preparedness/ Incident Prevention/Crisis Management
Guidelines for developing an emergency plan: what departments and facilities to contact for assistance, how to announce an emergency and conduct an evacuation, and how to handle the media. Explains the purpose and function of a crisis management team and demonstrates a practice drill. (FVC 250)

EDMONTON BUSINESS GETS ON COURSE

Work Safe Alberta's Tool Kit for Small Business a user-friendly guide to tackling health and safety concerns

by Cheryl Mahaffy

Busy as always at his four-bay Car Crazy Detail Centre in west Edmonton, Ahmet Tasdemir felt a sense of foreboding when an occupational health and safety officer appeared at the door. Sure enough, the officer spotted concerns: stacks of this'n'that blocking a fire exit, a hoist that needed inspection, inadequate first aid and emergency planning, past-due fire extinguishers, hazardous chemicals needing more attention. The list went on.

Within a month, Tasdemir had addressed every item on that list. "He took the program and ran with it," says occupational health and safety officer Karl Pedersen. "He involved his staff as well, and they did an exceptional job." When external schedules delayed certain tasks such as putting workers through refresher courses and having a respirator tested for proper fit, his obvious desire to move quickly earned him the extensions needed to achieve complete compliance.

How the tool kit helps

A key ingredient in that happy ending was Work Safe Alberta's Health and Safety Tool Kit for Small Business. This user-friendly guide not only outlines key aspects of Alberta's health and safety legislation, but provides step-by-step strategies for tackling concerns common to many small businesses. You'll find ideas for passing along safety information to staff, easy-to-follow hazard assessment and control procedures, detailed advice on reporting first aid incidents, a sample policy for preventing workplace violence and a sample emergency response plan. Hands-on and practical, the guide includes both blank forms and completed examples accompanied by tips for filling out each block.

Coupled with advice from the safety officer, the kit gave Tasdemir tools to work systematically through each safety order and make his shop a better place to work.

Small businesses are not the only ones benefiting from the small business tool kit. Some large employers have found the kit provides a simplified way to explain the legislation to frontline staff. Pedersen recalls pulling out the tool kit to illustrate a point about emergency planning with a construction leasing firm. The response: "This is

> The kit gave Tasdemir tools to work systematically through each safety order and make his shop a better place to work.

excellent. No one has ever sat down and said, 'This is how it's done.' They've just told us we have to do it."

Sharon Chadwick of Alberta's Workplace Innovation and Continuous Improvement team, who wrote the tool kit, cautions that it tackles just a few of the many topics in Alberta's complex Occupational Health and Safety Code. A collaborative effort with the Canadian Federation of Independent Businesses, it took shape after the code was updated in 2004, and the federation was seeking a simple tool to help its members comply. "We took some key sections that would be common to many small businesses and provided some very basic information, plus links to resources for more information that would be specific to particular groups. The tool kit doesn't replace an owner's responsibility to be aware of and know the other components of the legislation, but it does list those other components. So even there, it will get you started."

The unique concerns of small business

Like many small business owners, Ahmet Tasdemir slid sideways into the line of work that's now his livelihood. In 1997 he left behind a promising sales career in Turkey

to seek his fortune in Edmonton, where his search for a job turned up just two low-wage options in the washing-up business. Preferring cars to dishes, he chose Bubbles Car Wash, sandwiching English as a second language classes between working at two outlets to build up cash reserves. After four years at Bubbles and stints in a few other detailing shops, he struck out on his own in 2001 and moved to his current location in 2004.

Every small business has unique concerns. For a detail shop such as Car Crazy, cleaning agents can pose hazards—and suppliers are not always upfront about that fact. "We were using proper gloves and masks and safety glasses, but still I didn't know lots of stuff," Tasdemir says. "When I was working for other dealerships, they probably knew and were following the regulations, but they didn't tell me. This helped open my eyes. Now we've started reading the labels, and when we put things in smaller bottles, we label those. So it's good, actually."

Car Crazy has also rethought some of its purchases. For example, the crew replaced an interior degreaser that was making workers cough with a product that's double the price but friendlier to both users and the environment. In a shop where six to 12 employees spiff up 300 cars a month, every bit helps.

"If you're willing to do it, it's easy," Tasdemir reports. "And you have to do it, because you are dealing with people, and health is a big issue. I don't want to be responsible if something happens to my people. If you lose your health, it's so hard to bring it back again."

For more information

- The 46-page tool kit is available in hard copy and on the Internet.
- You can also order a CD-Rom that packages the Health and Safety Tool Kit for Small Business with an incident cost calculator and a companion document, *Managing Health and Safety in Your Workplace*.
- Small businesses wishing to boost their safety knowledge may be interested in interactive e-learning programs on topics such as identifying hazards and investigating safety incidents.

All can be ordered through the Workplace Health and Safety Contact Centre, whs@gov.ab.ca, phone 1-866-415-8690, fax (780) 422-3730.

For more about these and other resources, click on www.worksafely.org, then "Workplace Health and Safety," then "Small Business."

Cheryl Mahaffy is an Edmonton writer whose work appears in several anthologies, including the 2006 release, Big Enough Dreams.

MAKING THE SEARCH TASK EASIER

by Bob Christie

When I first got involved with the Internet less than 20 years ago, I clearly remember someone making the grand announcement that there were over one million web pages on the Internet. Recently Google bragged that it could point users to billions of pages. Wikipedia identifies 106,835,138 websites (not pages, but sites, each made up of many pages) with their own registered domains. This excludes anything that starts like www.aol.com/members ... Suffice it to say the amount of data has exploded. Take a look at a site like Google and see all the different specialized applications they have introduced so far. Want to search for a scholarly paper? They have an engine. Want to search U.S. patents? They have an engine. Look at any 10 TV commercials and you will find websites on at least half of them. Read a newspaper ad and get directed to the advertiser's website.

So, what do you do when you need to find a particular bit of information in this jumble of stuff? There are ways to make your search task easier. Imagine that a single word search will collect a whole bunch of sites that contain that word. Now put a second word into the search engine and it, too, will list all the sites with that word. Now enter both words. If you haven't put the little word OR between the two words, your search engine will first give you the sites that contain both words. For example, if you ask Google to look for "safety," you will get a modest 395 million sites. If you add the word "industrial," you get down to 116 million. When you add "Alberta," you get down to a still large but much more manageable 1,220,000 sites. When you add the words "oilfield" and "hauling," you are down to a measly 19,500.

Of course, you can be even more specific. With the last example, if you go to Google's Advanced Search, you can make "oilfield" and "hauling" parts of the same term. Now you are down to a positively manageable 259 sites.

The Internet is not much different than the rest of the world. You get a lot farther by working smart than by working hard.

Bob Christie, who recently moved to Lethbridge, is a partner at Christie Communications Ltd. Bob supplies most of the web link resources for the articles in this magazine.

WHAT IMPROVEMENTS HAVE YOU MADE AT YOUR WORKPLACE?

If you've found a solution worth sharing, please send it to ray.cislo@gov.ab.ca.

MOTORIZED CART PUSHER/PULLER

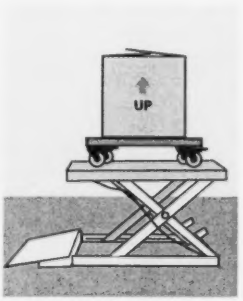
The Problem
Once loaded, some wheeled racks and carts are too heavy for workers to safely move using their own muscular power.

The Solution
Safely move loads of 1200 kg to 22,000 kg with a motorized cart puller (it can also push loads). This manual material handling machine, which is like a tugboat, can move heavy loads at low speed and under the operator's control.

Benefits
Since workers do not have to exert themselves to push or pull extremely heavy loads, they can avoid overexertion injuries, particularly to the back, shoulders and arms.

ROLL-ON SCISSOR LIFT

The Problem
Servicing some wheeled equipment can be difficult to do at ground level, and the equipment may be too awkward and heavy to lift onto a table.



The Solution
Roll wheeled equipment onto a roll-on scissor lift and then raise it to the optimal height. (Don't forget to lock the wheels.)

Benefits
Workers avoid having to lift heavy equipment. They also avoid having to work in awkward or uncomfortable postures.

WORKPLACE HEALTH & SAFETY

Contact us any time
For occupational health and safety information and assistance, or to order Workplace Health & Safety publications, phone the Contact Centre at 1-866-415-8690 toll free in Alberta (415-8690 in Edmonton and area) or visit http://industry.alberta.ca/whs-contact.

WORK SAFE
ALBERTA

Sign up for Workplace Health & Safety news
To be notified by e-mail of all new Workplace Health & Safety website postings, sign up for a FREE subscription service through http://industry.alberta.ca/whs-subscribe.

Alberta Government Library - Labour Building Site
To review the large selection of occupational health and safety information materials available through the Alberta government, go to http://employment.gov.ab.ca/library.

To borrow materials, either contact your local library and make your requests through the inter-library loan system or visit the Alberta Government Library:

3rd floor, 10808 - 99 Avenue
Edmonton, AB T5K 0G5

Library phone (780) 427-8533

Audio-Visual Services phone (780) 427-4671

To reach either of the above numbers toll-free in Alberta, dial 310-0000 followed by the area code and phone number.

Library fax (780) 422-0084

Workplace Health & Safety is an Alberta Employment, Immigration and Industry program that falls under the jurisdiction of Minister Iris Evans.

NEW THINKING ABOUT CARPAL TUNNEL SYNDROME

by Ray Cislo

Recent research findings into the causes of carpal tunnel syndrome show just how mysterious the human body can be. This ailment affects up to 10 per cent of the population, with women affected more often than men. The incidence of carpal tunnel syndrome peaks at approximately age 42 and reveals itself as numbness, tingling and pain in the hands, especially the thumb, index and middle fingers.

Carpal tunnel syndrome became widely known in the 1990s, as the number of office workers increased significantly. It is commonly believed to be caused by overuse of the hands, most often due to typing on a keyboard, but the actual cause is still unknown.

Description and symptoms

Carpal tunnel syndrome is the result of increased pressure on the median nerve as it passes from the forearm to the hand through a structure in the wrist known as the carpal tunnel. This tunnel is formed by the wrist (carpal) bones on three sides and then an overlying ligament on the fourth. In addition to the median nerve, the nine tendons that allow the fingers to move also pass through this tunnel. It's a crowded place.

The median nerve can be compressed by sources external to the tunnel, for example, resting the wrist on a tool handle or table edge. Or the compression can be caused internally, by inflammation at the wrist or an accumulation of fluid, which may occur, for example, during pregnancy. Symptoms begin gradually, without a specific injury, often appearing at night or in the morning. This is because many people sleep with their wrists bent, which further compresses the carpal tunnel.

In addition to numbness and tingling, many people experience weakness and have difficulty gripping objects. In the early stages, people often attribute the symptoms to poor blood circulation and feel that their hands are "falling asleep." However, unless significant numbness and tingling are the main symptoms, it is unlikely that the problem is carpal tunnel syndrome.

New research findings

Among some researchers, health care providers and insurers, the relationship between work and carpal tunnel syndrome remains controversial. Two studies point out that while work and lifestyle-related factors affecting wrist position may be a factor, there may also be an underlying genetic component.

A research report released in early 2007 suggests that pressure in the carpal tunnel varies with the angle of the wrist. The researchers provide guidelines for the extent to which the wrist can be safely bent backwards, towards the palm, and side to side over extended periods of time. This information may be useful to designers of tools and workstations who are seeking to limit one of the factors that contribute to carpal tunnel syndrome. The key message to workers is to try to maintain the wrist in a "neutral" position during sustained work, and to avoid excessive sustained bending of the wrist.

The second study suggests that the link between hand use and carpal tunnel syndrome is overstated and may be inaccurate. The researchers say that a genetic component may place certain people at risk.

Ray Cislo, P.Eng., B.Sc.(H.K.) is a safety engineering specialist at Workplace Policy and Standards, Alberta Employment, Immigration and Industry.

REFERENCES

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Peter J. Keir, Joel M. Bach, Mark Hudes and David M. Rempel, "Guidelines for Wrist Posture Based on Carpal Tunnel Pressure Thresholds," February 2007.

www6.aaos.org/news/Pemr/press_release.cfm?PRNumber=536
Press Release, American Association of Orthopaedic Surgeons, February 14, 2007.

http://orthoinfo.aaos.org/brochure/thr_report.cfm?Thread_ID=5&topcategory=Hand
Carpal Tunnel Syndrome, American Association of Orthopaedic Surgeons

http://en.wikipedia.org/wiki/Carpal_tunnel_syndrome
Carpal Tunnel Syndrome, Wikipedia

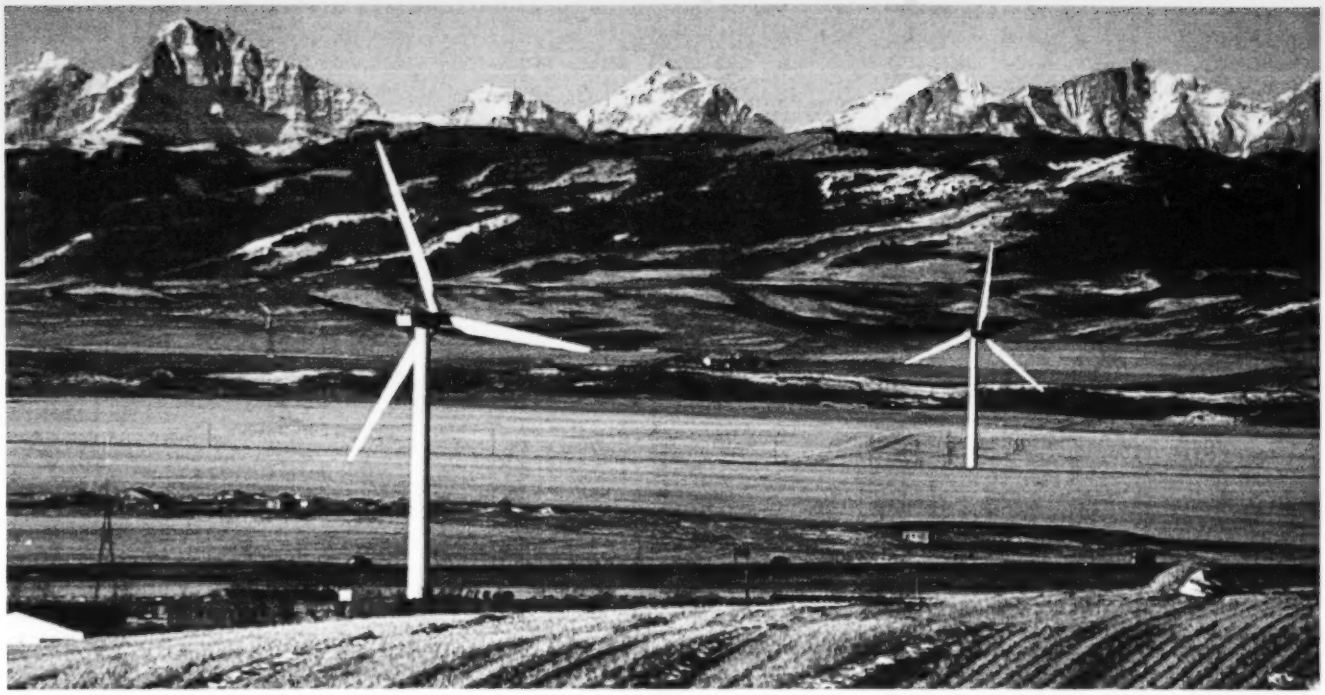

Photo Courtesy of Canadian Hydro

RESCUE TECHNIQUES

Wind Turbines in Southwestern Alberta

by Margaret Anne J. Taylor

Canadian Hydro owns four wind plants—three near Pincher Creek and one near Magrath.

Wind Technician Ian Lindsell says, "We go up almost daily to the nacelle, the unit at the top of the tower that houses the equipment, to handle annual preventative or routine maintenance. Most of the mechanical stuff is high up in the nacelle—the generators, gearbox, main shaft, hub and blades. Eighty per cent of our time is spent there and twenty per cent is spent down tower."

In the event of a fall from heights, it is imperative that a worker is rescued in a timely manner. Suspension trauma (a problem with circulation as a result of the harness restricting blood flow when in suspension) can be a life-threatening condition. Therefore, a co-worker must be trained and available to lower the fallen worker to the ground within 20 minutes or less. Areas such as inside the blade or inside the tower leg are confined spaces that are very difficult to extract a sick or injured worker from. Rescue from these areas also requires precision, fine tuned training and extraction techniques.

Lindsell says, "Since wind technicians are right on site and we know the environment, we need to be the first responders in the case of a climbing or health incident. With workers being up that high, the local emergency response team would have a difficult time getting up to an injured party. Our whole focus is how to get the injured party down on the ground where he or she can be treated by local emergency services."

Most wind farms are located in rural communities, and emergency services in these areas are not usually skilled in high-angle rescue, says Dave West, president of Vertical Systems International. "High-angle rescue is vertical rope rescue, which is what it would take to get someone out of the inside or down from on top of these towers. And often, in these emergencies, there is also a combination of high-angle and confined space rescue. This type of rescue requires a high degree of skill and frequent practice sessions. There is no margin for error."

Operations Manager Kevin Carswell says that, in addition to extensive training undertaken over the past two years, Canadian Hydro has set up a safety system for each truck or team of employees that includes rescue equipment such as ropes, pulleys, carabiners, anchors and descenders.

PARTNERSHIPS NEWS

NEW PARTNER

Welcome to BOWEN Workforce Solutions Inc., Calgary, the most recent Partner in Health and Safety. Partners, who are recognized as leaders in their industry, commit to taking a proactive role in promoting health and safety throughout Alberta.

CONTINUING INTERNATIONAL INTEREST IN THE PARTNERSHIPS PROGRAM

In January, Rob Feagan, Manager of Partnerships–Edmonton shared information about the Partnerships program with a delegation of visitors from Alberta's sister province, Heilongjiang, China.

STRATEGIC PLANNING

At the time of writing, a final draft of the Partnerships Strategic Plan (see January 2007 issue, page 15) had been prepared for the Minister's review and approval. An implementation plan will be completed by late spring or early summer. For more information, contact Rob Feagan at rob.feagan@gov.ab.ca.

Partnerships IN HEALTH AND SAFETY

Partnerships in Health and Safety is a non-regulatory, province-wide injury prevention program sponsored cooperatively by government, labour and industry. The program offers:

- tools to implement a health and safety management system
- guidance in applying for a Certificate of Recognition (COR)
- potential for premium refunds from the Workers' Compensation Board-Alberta

For more information, call the Partnerships Hotline at 1-866-415-8690 or visit http://industry.alberta.ca/whs-partnerships.

THE LAST RESORT

REPORTING ON RECENT CONVICTIONS UNDER THE OCCUPATIONAL HEALTH AND SAFETY ACT

In the fall of 2006 the following employers pleaded guilty to failing to ensure the health and safety of a worker (Occupational Health and Safety Act):

- **H&H Stucco & Siding Ltd.** On March 27, 2003, a 26-year-old worker was fatally injured when he fell 9.63 metres from an unguarded fourth-floor balcony at a condominium construction site in Edmonton.
- **Jeffrey Clements, operating as Reality Flooring Ltd.** On April 24, 2003, a 29-year-old worker was seriously burned when vapours from a flammable solvent he was using ignited.
- **Marcel Beaunoyer (Marcel's Painting).** On July 17, 2003, a 70-year-old worker was fatally injured when he fell 4.6 metres from the top section of an unprotected scaffold onto a concrete floor.
- **425167 Alberta Ltd. (Bottle Bin Depot).** On August 29, 2003, a 27-year-old worker had his head caught and crushed in a paper and cardboard baler, resulting in fatal injuries. The baler safety door interlock switch had been deliberately defeated by a piece of wood, allowing the baler to operate with the safety gate open.
- **Reynolds Museum Ltd.** On July 14, 2005, a 14-year-old yard worker was fatally injured when a truck box he was sandblasting fell on him. The truck box had not been secured to prevent it from falling.

In the fall of 2006 the following employer pleaded guilty to failing to take reasonable steps to protect the health and safety of other workers present while he was working (Occupational Health and Safety Act):

- **Bruce Underhill.** On June 19, 2003, a piece of machinery known as a soil stabilizer struck a gas line, resulting in a fire. A 60-year-old worker who was operating the soil stabilizer received serious burn injuries that caused him to die five days later in hospital.

Fines levied in the above cases ranged from $45,780 to $500,750. Several of the employers involved in these cases were also asked to make additional payments to agencies that promote and support workplace health and safety (for example, Northern Lakes College, Stony Point Campus and the Job Safety Skills Society) or to make similar reparations.

For details, go to http://industry.alberta.ca/whs-prosecutions.

WORKPLACE FATALITIES

Investigated in Alberta

September 1, 2006 – February 2, 2007

Most work-related incident fatalities that fall under provincial jurisdiction are investigated by Workplace Health & Safety. In general, highway traffic, farm, disease or heart attack fatalities are not investigated.

In many cases, investigation into these fatalities is continuing. Final investigation reports are filed at the Alberta Government Library – Labour Building site and can be reviewed there or at http://industry.alberta.ca/whs-fatalities.

Total fatalities investigated in 2006	35
Fatalities investigated in 2007 (year-to-date, as of February 2)	6

A 35-year-old logger was operating a grapple skidder when a log came through the cab, striking the worker in the head.

A 55-year-old foreman and a co-worker were felling a tree. As the tree fell, it hit a dead tree and the top of the dead tree kicked back, hitting the foreman.

A 55-year-old logger had finished loading his log truck and was found by a co-worker, injured and unconscious on the ground close to the truck's grapple. The worker later died as a result of injuries.

A 68-year-old logger was crushed between a feller buncher and a transport trailer as the buncher was being unloaded from the trailer.

A 28-year-old field operator was setting up a meteorological tower for environment monitoring near a drilling rig location. While raising the tower, contact was made with an energized overhead power line. The worker received an electrical shock of 14,400 volts.

A 31-year-old electrician was relocating electrical outlets and switches at an office remodeling work site. He contacted 347-volt live wires on an electrical switch and was electrocuted.

A 31-year-old crane operator was travelling to a work site with a 60-tonne crane that went off the road and rolled, fatally injuring the operator.

A 33-year-old surveyor was a passenger in a vehicle that rolled. The worker was not wearing a seatbelt.

A 44-year-old labourer/grade checker was fatally injured on a construction site. A paver was laying a strip of asphalt surfacing along the runway. Tandem-axle dump trucks supplying asphalt were backing up. The worker was standing nearby, and the wheels of a truck caught his leg and pulled him under the truck.

A 47-year-old plant operator was run over by a tractor unit while helping a truck driver hook up a trailer.

A 20-year-old apprentice plumber collapsed and slid down a slope, dropping into a 1.5 metre-deep excavation. He was found face down in the mud.

A 27-year-old well test supervisor was assisting co-workers to retrieve wireline tools stuck in a pipe joint. As they were ramming the tools inside the joint, pressure released unexpectedly, expelling the tools from the pipe joint and causing them to strike the worker in the abdomen.

A 46-year-old truck driver was attempting to drive a pipeline sideboom off the back end of a transport trailer. The sideboom rolled off. The worker tried to jump off and stay clear of the sideboom but was crushed when the sideboom fell to the ground and rolled on him.

A 46-year-old swamper and a vacuum truck operator were cleaning out shale from inside a vacuum truck. While the operator manipulated the hydraulic controls for the rear door, the swamper arrived and went to the rear of the truck. The swamper was struck by the moving rear door and received fatal head injuries.

A 26-year-old welder and his assistant were welding on top of a 750 barrel tank when it exploded, fatally injuring the welder and injuring his assistant.

A 32-year-old meat cutter was fatally injured when he slipped and unintentionally stabbed himself in the eye. The knife went through his brain.

Return Undeliverable Canadian Addresses to:
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